REMARKS

I. Status of the Claims

Claims 1-56 remain pending in this application. In the January 13, 2003, Office Action, the Office withdrew claims 1-29 from consideration. The PTOL-326 indicates that only claims 30-56 are pending in this application. Applicants have not canceled claims 1-29. Although claims 1-29 are withdrawn and not under consideration, claims 1-29 are still pending. Applicants respectfully request the Office indicate claims 1-56 are pending and claim 1-29 are withdrawn in sections 4 and 4a of the next PTOL-326 issued. Claims 30-56 are under consideration and have been rejected under 35 U.S.C. § 103(a).

Claim 30 has been amended to clarify that the keratinous fiber is heated "to at least 45°C". Support for this amendment may be found throughout the specification. For example, the various Examples describe applying the compositions of the invention to swatches of hair at 45°C. Some of the swatches are then heated with a blow dryer, and are referred to as "treated at 45°C." Other swatches are heated to 130°C with a flat iron, and are referred to as "treated at 130°C." Example 3 provides a particularly clear description of the heat cycle test described more generally in other sections of the specification. In addition, Tables such as 11 and 12 show that pentoses, but not the hexose D-glucose, protect hair from extrinsic damage at these temperatures. The generic concept of applying a composition of the invention and heating the keratinous fiber is disclosed in the specification, for example, on pages 6-7. Because the

specification discloses heating the keratinous fiber to 45°C and higher, no new matter has been added by this amendment.

II. Information Disclosure Statement

An Information Disclosure Statement accompanies this Amendment. Applicants include as part of this Information Disclosure Statement a PTO/SB/08 that again lists the U.S. patent and co-pending applications previously listed on the Form PTO 1449 provided on May 24, 2004, but not considered by the Examiner. Applicants respectfully request the Examiner indicate that each of these documents has been considered by initialing in the space provided. *See* M.P.E.P. §609. In addition, Applicants respectfully point out that 37 C.F.R. § 1.98(a)(1) specifically provides for the consideration of U.S. Patents and pending applications by the Examiner. 37 C.F.R. § 1.98(a)(1); s*ee also* M.P.E.P. § 609. The Examiner has not indicated any reason why the Information Disclosure Statement does not meet the requirements for consideration. Applicants therefore also respectfully request the Examiner either consider the documents without lining through them on the newly submitted PTO/SB/08, or explain why the documents are considered not to comply.

III. Rejections under 35 U.S.C. § 103

The Office continues to reject claims 30-56 under 35 U.S.C. § 103 as being unpatentable over Wisotzki et al. (U.S. Patent No. 4,900,545) ("Wisotzki"), or Koga et al.

(U.S. Patent No. 5,660,838) ("Koga"), or Syed et al. (U.S. Patent No. 5,641,477) ("Syed").

In order to establish a *prima facie* case of obviousness, the Office must demonstrate that there is some suggestion or motivation, either in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference. *See* M.P.E.P. § 2143. Moreover, "all claim limitations must be taught or suggested." M.P.E.P. § 2143.03.

As presented in detail in Applicants' previous responses to these same grounds of rejection, the ordinary artisan would not have been motivated to select the particular sugars used in the claimed methods. In addition, Applicants have previously pointed out that none of the references cited teach or suggest all of the claimed limitations, particularly "heating said keratinous fiber." The Office, however, has found these arguments unconvincing and has chosen to regard the application of tepid water during a rinse step as sufficient to meet the limitation "heating said keratinous fiber." *See* June 25, 2003 Office Action, pages 9-10.

Applicants maintain for the reasons set forth in full in previous responses to these same grounds of rejection that the Office has not established a prima facie case of obviousness. In addition, Applicants strongly disagree with the Office's position that a tepid water rinse meets the claimed step of "heating said keratinous fiber." In an effort to advance prosecution, however, Applicants have amended claim 30 to recite "heating said keratinous fiber to at least 45°C" to further distinguish the claimed method.

The references upon which the Office relies does not teach or suggest heating the keratinous fibers to at least 45°C. *Syed* mentions only a "tepid" water rinse following

application of the lanthionizing composition and evaluating the tensile strength while the hair is immersed in water at a temperature of 21°C. Column 5, lines 7-47. As discussed in previous responses, *Syed* does not provide any reason for the ordinary artisan to heat the hair following application of the lanthionizing composition, and certainly does not motivate the ordinary artisan to heat the hair to at least 45°C. In addition, Applicants reiterate their position that the ordinary artisan would not have been motivated to select a composition comprising at least one sugar chosen from C3 to C5 monosaccharides and derivatives thereof based on the teaching of the lanthionizing composition of *Syed*. *Syed* does not provide any motivation to select a C3 to C5 sugar from among the sugars mentioned. Instead, *Syed* states at column 3, lines 7-8 that sucrose (C6) or sorbitol (C6) is preferred.

Wisotzki similarly teaches only a hair rinse at 25°C or 30°C after application of a composition for repairing split ends. Column 5, lines 44-67. In addition, *Wisotzki*, like *Syed*, actually uses a C6 sugar (glucose) and mentions in column 2 at lines 36-49 that glucose is preferably used in the composition for repairing split ends. However, glucose does not provide the protective effect seen with C3 to C5 monosaccharides and disaccharides. Accordingly, Applicants again point out that *Wisotzki*, by preferring a C6 sugar, does not provide any motivation to select only those composition comprising at least one sugar chosen from C3 to C5 monosaccharides and derivatives thereof, as required by the claims.

As previously discussed in detail, the only time *Koga* discusses a temperature is with respect to the humidity chamber experiments at column 4-7, which in some cases expose the composition to 35°C. Applicants note again that *Koga* does not teach

applying the composition to a keratinous fiber prior to or during the heating. Instead, the composition is heated only in the humidity chamber experiments, which do not involve application of the composition to a keratinous fiber.

Applicants maintain for the reasons of record and as discussed *supra* that the teachings of *Syed*, *Witsozki*, and *Koga* did not render claim 30 unpatentable even without the inclusion of the minimum temperature requirement now recited. The inclusion of the temperature limitation should, however, obviate any concerns the Office may have regarding withdrawal of the rejections of record. Accordingly, Applicants respectfully request the Office withdraw these rejections.

IV. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Jessica H. Roark
Jessica H. Roark

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By: Reg # 54,869 FOR:
Anthony C. Tridico
Reg. No. 45,958
202.408.4000